

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Kouznetsov et al.

Application No.: 10/054,702

Filed: January 25, 2002

Title: System And Method For Providing A
Framework For Network Appliance
Management In A Distributed
Computing Environment

Attorney Docket No.: 002.0230.01



Group Art Unit: 2171

Examiner: Unassigned

Assistant Commissioner for Patents
Washington, D.C. 20231**RECEIVED**

JUL 01 2002

PETITION FOR PATENT APPLICATION
FILING UNDER 37 CFR 1.47(a)

OFFICE OF PETITIONS

Dear Sir:

Applicant petitions for the filing of the present patent application in light of an inventor, Daniel J. Melchione, who refuses to sign or cannot be reached pursuant to 37 CFR 1.47(a).

Mr. Melchione is named as a joint inventor on the above-identified patent application ("Patent Application"). A copy of a Filing Receipt mailed on February 25, 2002, is provided at Exhibit 1. At the request of Applicant's representative, the Filing Receipt was withdrawn on May 8, 2002, a copy of which is provided at Exhibit 2. Copies of a substitute Filing Receipt dated May 8, 2002, and Notice of File Missing Parts of Nonprovisional Application are provided at Exhibit 3. Mr. Melchione has refused to sign the application papers despite reasonable efforts to contact him and secure his signature.

The patent application is a conversion of U.S. provisional patent application Serial No. 60/309,835, filed August 3, 2001. The Filing Receipt for the provisional patent application, listing Daniel J. Melchione as an applicant, is provided at Exhibit 4. Mr. Melchione assigned over all rights, title and interest in the provisional patent application to his former employer Networks Associates Technology, Inc. ("Networks Associates"), the assignee of the Patent

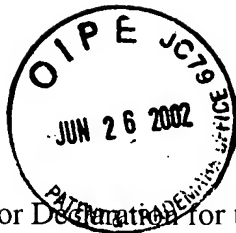


Application, on August 2, 2001 (Exhibit 5). Thus, Networks Associates owns all rights, title and interest in the subject matter of the provisional patent application vis-à-vis Mr. Melchione.

The patent application is also a conversion of U.S. provisional patent application Serial No. 60/309,858, filed August 3, 2001. The Filing Receipt for the provisional patent application, listing Daniel J. Melchione as an applicant, is provided at Exhibit 6. Mr. Melchione assigned over all rights, title and interest in the provisional patent application to Networks Associates, the assignee of the Patent Application, on August 2, 2001 (Exhibit 7). Thus, Networks Associates owns all rights, title and interest in the subject matter of the provisional patent application vis-à-vis Mr. Melchione.

As well, Mr. Melchione is subject to an obligation to assign the Patent Application to his former employer, Networks Associates. As a condition of employment with Networks Associates, he signed an "Employee Inventions and Proprietary Rights Assignment Agreement" ("Employee Agreement"), dated April 24, 2000 (Exhibit 8). In his Employee Agreement, Mr. Melchione agreed to "assign and agree to assign to the Company [Networks Associates] . . . [his] entire right, title and interest in and to all inventions and any associated intellectual property rights which [he] may solely or jointly conceive, develop or reduce to practice during the period of [his] employment" and to execute documents and assist and cooperate in the registration and enforcement of applicable patents. Further, according to the terms of the Employee Agreement, Mr. Melchione agreed that if "the Company is unable for any reason to secure my signature to any document required to apply for or execute any patent . . . [he] hereby irrevocably designate[s] and appoint[s] the Company and its duly authorized officers and agents as my agents and attorneys-in-fact to act for and on my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents . . . with the same legal force and effect as if executed by me." As an agent of Networks Associates, Applicant's representative asserts Networks Associates' designation and appointment to act on behalf of Mr. Melchione to execute and file the Patent Application.

In addition, Applicant's representative has undertaken reasonable efforts to contact Mr. Melchione and secure his signature. Mr. Melchione left the employ of Networks Associates around August 5, 2001 and has not been in contact with either the Applicant or Applicant's representative. Applicant was therefore unable to directly obtain Mr. Melchione's signature on



an Oath or Declaration for the Patent Application. A declaration by Applicant's representative's paralegal, Casey Leichter, is provided at Exhibit 9, in support of the efforts undertaken to contact Mr. Melchione. On December 21, 2001, Applicant's representative mailed the following documents ("Documents") to Mr. Melchione via Certified Mail with Return Receipt Requested and by First Class Mail: (1) U.S. Patent Application entitled, "System And Method For Providing A Framework For Network Appliance Management In A Distributed Computing Environment"; (2) Declaration and Power of Attorney; (3) Assignment; and (4) cover letter from the Law Offices of Patrick J.S. Inouye, dated December 21, 2001 (Exhibit 10). Copies of the Certificate of Mailing and Certified Mail Receipt are provided at Exhibit 11. Around January 31, 2002, the Certified Mailing Document Set was returned as unclaimed. A copy of the envelope for the Certified Mailing Document Set, indicating the reason for return, is provided at Exhibit 12. A copy of the partially-signed Declaration requiring Mr. Melchione's signature is provided at Exhibit 13.

Accordingly, in light of assignments of the subject matter disclosed in the related provisional patent applications, Mr. Melchione's obligation to assign, and the reasonable efforts undertaken by Applicant's representative, Applicant requests the grant of this Petition for the filing of the Patent Application in light of the refusal of Mr. Melchione to sign the application papers. A petition fee of \$130.00 is enclosed. Please contact the undersigned at (206) 381-3900 regarding any questions or concerns associated with the present matter.

Respectfully submitted,

Dated: June 17, 2002

By: 

Patrick J.S. Inouye, Esq., Reg. No. 40,297

The Law Offices of Patrick J.S. Inouye
810 3rd Avenue, Suite 258
Seattle, WA 98104
Telephone: (206) 381-3900
Facsimile: (206) 381-3999



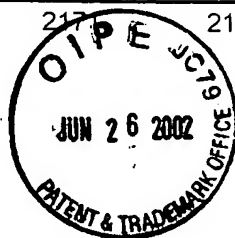
RECEIVED
JUL 01 2002
OFFICE OF PETITIONS



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/056,702	01/25/2002	217	2148	002.0230.01	14	54	4



CONFIRMATION NO. 2048

FILING RECEIPT



OC000000007527792

Law Offices of Patrick J.S. Inouye
Suite 258
810 Third Avenue
Seattle, WA 98104

Date Mailed: 02/25/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Victor Kouznetsov, Aloha, OR;
Michael Chin-Hwan Pak, Portland, OR;
Daniel J. Melchione, Beaverton, OR;
Ian Shaughnessy, Portland, OR;

Domestic Priority data as claimed by applicant

THIS APPLN CLAIMS BENEFIT OF 60/309,835 08/03/2001
AND CLAIMS BENEFIT OF 60/309,858 08/03/2001

Foreign Applications

If Required, Foreign Filing License Granted 02/25/2002

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

Title

System and method for providing a framework for network appliance management in a distributed computing environment

Preliminary Class

707

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
10/056,702	01/25/2002	Victor Kouznetsov	002.0230.01

22895
PATRICK J S INOUE P S
810 3RD AVENUE
SUITE 258
SEATTLE, WA 98104



CONFIRMATION NO. 2048

WITHDRAWAL NOTICE



OC000000008059182

Date Mailed: 05/08/2002

WITHDRAWAL OF PREVIOUSLY SENT NOTICE

The Notice mailed on 02/25/2002 was sent in error and is hereby withdrawn. A corrected Notice is enclosed. The time period for reply runs from the mail date of the corrected Notice. We apologize for any inconvenience this caused.

*A copy of this notice **MUST** be returned with the reply.*

Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
10/056,702	01/25/2002	2171	2148	002.0230.01	14	54	4

22895
PATRICK J S INOUE P S
810 3RD AVENUE
SUITE 258
SEATTLE, WA 98104



CONFIRMATION NO. 2048

FILING RECEIPT



OC000000008059224

Date Mailed: 05/08/2002

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Filing Receipt Corrections, facsimile number 703-746-9195. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Victor Kouznetsov, Aloha, OR;
Michael Chin-Hwan Pak, Portland, OR;
Daniel J. Melchione, Beaverton, OR;
Ian Shaughnessy, Portland, OR;

Domestic Priority data as claimed by applicant

THIS APPLN CLAIMS BENEFIT OF 60/309,835 08/03/2001
AND CLAIMS BENEFIT OF 60/309,858 08/03/2001

Foreign Applications

If Required, Foreign Filing License Granted 02/25/2002

Projected Publication Date: Request for Non-Publication Acknowledged

Non-Publication Request: Yes

Early Publication Request: No

Title

System and method for providing a framework for network appliance management in a distributed

computing environment

Preliminary Class

707

**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



UNITED STATES PATENT AND TRADEMARK OFFICE

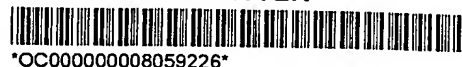
COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
10/056,702	01/25/2002	Victor Kouznetsov	002.0230.01

22895
PATRICK J S INOUE P S
810 3RD AVENUE
SUITE 258
SEATTLE, WA 98104



CONFIRMATION NO. 2048
FORMALITIES LETTER



OC000000008059226

Date Mailed: 05/08/2002

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The signature of the following inventor(s) is missing from the oath or declaration:
Daniel J. Melchione
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.

Items Required To Avoid Processing Delays:

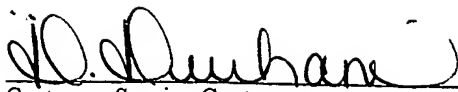
The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$130** for a Large Entity

- **\$130** Late oath or declaration Surcharge.

*A copy of this notice **MUST** be returned with the reply.*



Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

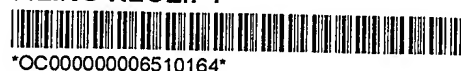
APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/309,835	08/03/2001		150	002.0229.01	1		

Patrick J.S. Inouye, Esq.
The Law Offices of Patrick J.S. Inouye
Suite 258
810 Third Avenue
Seattle, WA 98104



CONFIRMATION NO. 7697

FILING RECEIPT



OC000000006510164

Date Mailed: 09/04/2001

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Victor Kouznetsov, Aloha, OR; ✓
Daniel J. Melchione, Beaverton, OR; ✓
Michael Chin-Hwan Pak, Portland, OR; ✓
Nicholas C.W. Hogle, Portland, OR; ✓
Ian Shaughnessy, Portland, OR; ✓

If Required, Foreign Filing License Granted 09/03/2001

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

Title

Secure network appliance configuration and management framework

Data entry by : VAN, VICTORIA

Team : OIPE

Date: 09/04/2001



**LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15**

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
Washington, DC 20231

RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

PATENTS ONLY

Tab settings ⇌⇌⇌

To the honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Victor Kouznetsov
Daniel J. Melchione
Michael Chin-Hwan Pak
Nicholas C. W. Hogle
Ian Shaughnessy

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: _____

2. Name and address of receiving party(ies)

Name: Networks Associates Technology, Inc.

Internal Address: _____

Street Address: 3965 Freedom Circle

City: Santa Clara State: CA Zip: 95054

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) 60/309,835

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patrick J.S. Inouye, Esq.

Law Offices of Patrick J.S. Inouye

Internal Address: _____



22895

PATENT TRADEMARK OFFICE

Street Address: 810 Third Avenue

Suite 258

City: Seattle State: WA Zip: 98104

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41). 40

- ☒ Enclosed
☐ Authorized to be charged to deposit account

8. Deposit account number:

501144

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Patrick J.S. Inouye, Esq.

Name of Person Signing

Signature

NOV 1 2001

Date

Total number of pages including cover sheet, attachments, and documents: **4**

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments

JOINT ASSIGNMENT

WHEREAS, WE, Victor Kouznetsov, Daniel J. Melchione, Michael Chin-Hwan Pak, Nicholas C.W. Hogle and Ian Shaughnessy (hereinafter "ASSIGNORS"), citizens of Russia, USA, USA, and USA, respectively, residing at; 20287 SW Tremont Way. Aloha, Oregon 97007; 10380 SW 152d Terrace, Beaverton, Oregon 97007. 15894 NW Andalusian Way, Portland, OR 97229. 3017 NE Knott, Portland, OR 971212. and 1030 NW Johnson, Unit 219, Portland, OR 97209, respectively; are the inventors of the invention in "Secure Network Appliance Configuration and Management Framework," for which we have executed a provisional patent application with the U.S. Patent and Trademark Office of the United States

- ☒ which is executed on even date herewith
- ☒ which is identified by THE LAW OFFICES OF PATRICK J.S. INOUE as attorney docket no. 0020229.01
- ☐ which was filed on August 3, 2001, Application No. 60/309,835

and WHEREAS, Networks Associates Technology, Inc. (hereinafter "ASSIGNEE"), a Delaware Corporation having a business address at 3965 Freedom Circle, Santa Clara CA 95054, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States provisional patent application and all conversions, divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

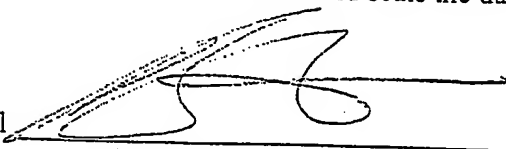
AND WE HEREBY authorize and request the Director of the United States Patent and Trademark Office, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have the full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries. In the event that one or more of the above inventors is not an employee of ASSIGNEE at the time such aid is required, they agree to render such aid in return for an hourly rate of pay no greater than twice their equivalent regular hourly pay as it stood on the date of their departure from ASSIGNEE.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date October 11th, 2001


Victor Kouznetsov

In the State of Oregon, county of Washington on Oct. 11, 2001, before me, Rita Marie Jimenez, Notary Public, personally appeared Victor Kouznetsov, personally known to me/proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal



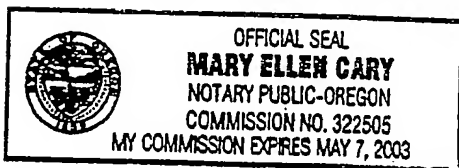

Notary Public

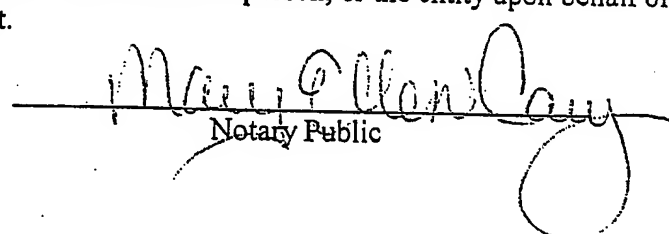
Date 8/2, 2001


Daniel J. Melchione

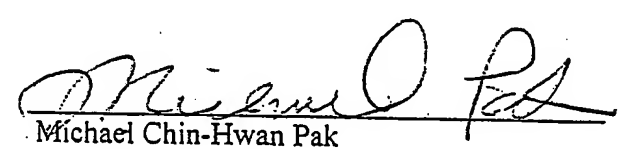
In the State of Oregon, county of Washington on August 2, 2001, before me, Mary Ellen Cary, Notary Public, personally appeared Daniel J. Melchione, personally known to me/proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

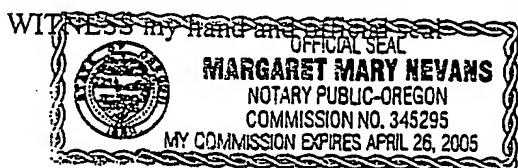




Notary Public

Date Oct 10, 2001


Michael Chin-Hwan Pak

In the State of Oregon, county of Washington on 10/10/01, before me, Margaret Mary Nevans, Notary Public, personally appeared Michael Chin-Hwan Pak, personally known to me/proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.




Notary Public

Date _____, 2001

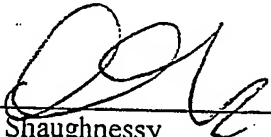
Nicholas C.W. Hogle

In the State of _____, county of _____ on _____, before me, _____ Notary Public, personally appeared Nicholas C.W. Hogle, personally known to me/proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Notary Public

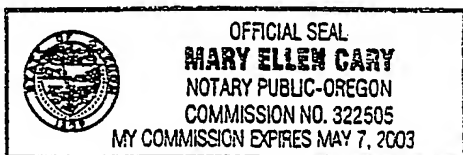
Date 10-8-01, 2001


Ian Shaughnessy

In the State of Oregon, county of Washington on 10/8/2001, before me, Mary Ellen Cary Notary Public, personally appeared Ian Shaughnessy, personally known to me/proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal


Notary Public





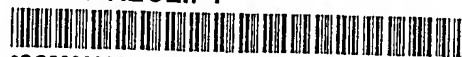
UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	DRAWINGS	TOT CLAIMS	IND CLAIMS
60/309,858	08/03/2001		150	002.0231.01	9		

CONFIRMATION NO. 7706

FILING RECEIPT



OC000000006508572

Patrick J.S. Inouye, Esq.
The Law Offices of Patrick J.S. Inouye
Suite 258
810 Third Avenue
Seattle, WA 98104



Date Mailed: 09/04/2001

Receipt is acknowledged of this provisional Patent Application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Davide Libenzi, Hillsboro, OR;
Daniel J. Melchione, Beaverton, OR;

If Required, Foreign Filing License Granted 09/01/2001

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

Title

System and method for performing efficient anti-virus screening of transient messages at a network gateway ✓

Data entry by : MANALAC, AMELIA

Team : OIPE

Date: 09/04/2001



LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Office of Export Administration, Department of Commerce (15 CFR 370.10 (j)); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

PLEASE NOTE the following information about the Filing Receipt:

- The articles such as "a," "an" and "the" are not included as the first words in the title of an application. They are considered to be unnecessary to the understanding of the title.
- The words "new," "improved," "improvements in" or "relating to" are not included as first words in the title of an application because a patent application, by nature, is a new idea or improvement.
- The title may be truncated if it consists of more than 500 characters (letters and spaces combined).
- The docket number allows a maximum of 25 characters.
- If your application was submitted under 37 CFR 1.10, your filing date should be the "date in" found on the Express Mail label. If there is a discrepancy, you should submit a request for a corrected Filing Receipt along with a copy of the Express Mail label showing the "date in."
- The title is recorded in sentence case.

Any corrections that may need to be done to your Filing Receipt should be directed to:

Assistant Commissioner for Patents
Office of Initial Patent Examination
Customer Service Center
Washington, DC 20231

RECORDATION FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

PATENTS ONLY

Tab settings ⇌⇌⇌

To the honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):
Davide Libenzi
Daniel J. Melchione

Additional name(s) of conveying party(ies) attached? ☐ Yes ☐ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Other _____

Execution Date: _____

2. Name and address of receiving party(ies)

Name: Networks Associates Technology, Inc.

Internal Address: _____

Street Address: 3965 Freedom Circle

City: Santa Clara State: CA Zip: 95054

Additional name(s) & address(es) attached? ☐ Yes ☐ No

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) 60/309,858

B. Patent No.(s) _____

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patrick J.S. Inouye, Esq.

Law Offices of Patrick J.S. Inouye

Internal Address: _____



22895

PATENT & TRADEMARK OFFICE

Street Address: 810 Third Avenue

Suite 258

City: Seattle State: WA Zip: 98104

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41). \$ 40

☒ Enclosed

☐ Authorized to be charged to deposit account

8. Deposit account number:

501144

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Patrick J.S. Inouye, Esq.

Name of Person Signing

Signature

NOV 1 2001

Date

Total number of pages including cover sheet, attachments, and documents: 3

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignments

JOINT ASSIGNMENT

WHEREAS, WE, Davide Libenzi and Daniel J. Melchione, (hereinafter "ASSIGNORS"), citizens of Italy and USA, respectively, residing at 20249 NW Galliard Loop, Hillsboro, Oregon 97124 and 10380 SW 152d Terrace, Beaverton, Oregon 97007, respectively; are the inventors of the invention in "System And Method For Performing Efficient Anti-Virus Screening Of Transient Messages At A Network Gateway," for which we have executed an application for a Patent of the United States

- ☐ which is executed on even date herewith
- ☒ which is identified by THE LAW OFFICES OF PATRICK J.S. INOUE as attorney docket no. 002.0231.01
- ☒ which was filed on August 3, 2001 Application No. 60/309,858

and WHEREAS, Networks Associates Technology, Inc. (hereinafter "ASSIGNEE"), a Delaware Corporation having a business address at 3965 Freedom Circle, Santa Clara CA 95054, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Director of the United States Patent and Trademark Office, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have the full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries. In the event that one or more of the above inventors is not an employee of ASSIGNEE at the time such aid is required, they agree to render such aid in return for an hourly rate of pay no greater than twice their equivalent regular hourly pay as it stood on the date of their departure from ASSIGNEE.

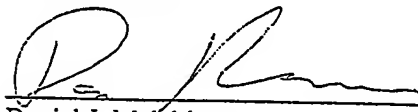
IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite
our respective signatures.

Date 8/3, 2001



Davide Libenzi

Date 8/3, 2001



Daniel J. Melchione



EMPLOYEE INVENTIONS AND PROPRIETARY RIGHTS ASSIGNMENT AGREEMENT

Dan Melchione

This Agreement is intended to formalize in writing certain understandings and procedures, which have been in effect since the time I was initially employed by myCIO.com, Inc. (the "Company"). In return for my new or continued employment by the Company, I acknowledge and agree that

1. No Conflict. I will perform for the Company such duties as may be designated by the Company from time to time. During my period of employment by the Company, I will devote my best efforts to the interests of the Company and will not engage in other employment or in any activities determined by the Company to be detrimental to the best interests of the Company without the prior written consent of the Company.

2. Period of Employment. As used herein, the period of my employment also includes any time in which I may be retained by the Company as a consultant.

3. Prior Work. All previous work done by me for the Company relating in any way to the conception, design, development or support of products for the Company is the property of the Company.

4. Proprietary Information. My employment creates a relationship of confidence and trust between the Company and me with respect to any information.

(a) Applicable to the business of the Company, or

(b) Applicable to the business of any client or customer of the Company, which may be made known to me by the company or by any client or customer of the Company, or learned by me in such context during the period of my employment.

All of such information has commercial value in the business in which Company is engaged and is hereinafter called "Proprietary Information." By way of illustration, but not limitation, Proprietary Information includes any and all technical and non-technical information including patent, copyright, trade secret, and proprietary information, techniques, sketches, drawings, models, inventions, know-how, processes, apparatus, maskworks, equipment, algorithms, software programs, software source documents, and formulae related to the past, current, future and proposed products and services of Company, and includes, without limitation, its respective information concerning research, experimental work, development, design details and specifications, engineering, financial information, procurement requirements, purchasing, manufacturing, customer lists, business forecasts, sales and merchandising and marketing plans and information.

5. Nondisclosure of Proprietary Information. All Proprietary Information is the sole property of the Company, its assigns, and its customers, and the Company, its assigns and its customers shall be the sole owner of all patents, copyrights, maskworks, trade secrets and other rights in connection therewith. I hereby assign to the Company

any rights I may have or acquire in such Proprietary Information. At all times, both during my employment by the Company and after its termination, I will keep in confidence and trust all Proprietary Information, and I will not use or disclose any Proprietary Information or anything directly relating to it without the written consent of the Company. Notwithstanding the foregoing, it is understood that, at all such times, I am free to use information which is generally known in the trade or industry not as a result of a breach of this Agreement and my own skill, knowledge, know-how and experience to whatever extent and in whatever way I wish

6 **Return of Materials.** Upon termination of my employment or at the request of the Company before termination, I will deliver to the Company all written and tangible material in my possession incorporating the Proprietary Information or otherwise relating to the Company's business

7 **Inventions** As used in this Agreement, the term "Inventions" means any and all new or useful art, discovery, improvement, technical development, or invention, whether or not patentable, and all related know-how, designs, maskworks, trademarks, formulae, processes, manufacturing techniques, trade secrets, ideas, artwork, software and other copyrightable and patentable works.

8 **Disclosure of Prior Inventions** I have identified on Exhibit A ("Prior Inventions") attached hereto all Inventions relating in any way to the Company's business or demonstrably anticipated research and development which were made by me prior to my employment with the Company ("Prior Inventions"), and I represent that such list is complete. I represent that I have no rights in any such Inventions other than those Prior Inventions specified in Exhibit A ("Prior Inventions") If there is no such list on Exhibit A ("Prior Inventions"), I represent that I have made no such Prior Inventions at the time of signing this Agreement

9 **Ownership of Company Inventions; License of Prior Inventions** I hereby agree promptly to disclose and describe to the Company, and I hereby assign and agree to assign to the Company or its designee, my entire right, title, and interest in and to all Inventions and any associated intellectual property rights which I may solely or jointly conceive, develop or reduce to practice during the period of my employment with the Company (a) which relate at the time of conception or reduction to practice of the invention to the Company's business or actual or demonstrably anticipated research or development, or (b) which were developed on any amount of the Company's time or with the use of any of the Company's equipment, supplies, facilities or trade secret information, or (c) which resulted from any work I performed for the Company ("Company Inventions") I do hereby grant the Company or its designees a royalty free, irrevocable, worldwide license (with rights to sublicense through multiple tiers of distribution) to practice all applicable patent, copyright and other intellectual property rights relating to any Prior Inventions which I incorporate, or permit to be incorporated, in any Company Inventions Notwithstanding the foregoing, I agree that I will not incorporate, or permit to be incorporated, such Prior Inventions in any Company Inventions without Company's prior written consent

10 **Cooperation in Perfecting Rights to Inventions**

(a) I agree to perform, during and after my employment, all acts deemed necessary or desirable by the Company to permit and assist it, at its expense, but without additional consideration in excess of my salary or wages, in obtaining and enforcing the full benefits, enjoyment, rights and title throughout the world in the Inventions hereby assigned to the Company. Such acts may include, but are not limited to, execution of documents and assistance or

cooperation in the registration and enforcement of applicable patents, copyrights, maskworks or other legal proceedings. If the Company requires my assistance after termination of my employment, I will be compensated for time actually spent in providing such assistance at an hourly rate equivalent to my salary or wages during the last period of my employment with the Company.

(b) In the event that the Company is unable for any reason to secure my signature to any document required to apply for or execute any patent, copyright, mask work or other applications with respect to any inventions (including improvements, renewals, extensions, continuations, divisions or continuations in part thereof), I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agents and attorneys-in-fact to act for and on my behalf and instead of me, to execute and file any such application and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyrights, maskworks or other rights thereon with the same legal force and effect as if executed by me.

11 **No Violation of Rights of Third Parties.** My performance of all the terms of this Agreement and as an employee of the Company does not and will not breach any agreement to keep in confidence proprietary information, knowledge or data acquired by me prior to my employment with the Company, and I will not disclose to the Company, or induce the Company to use, any confidential or proprietary information or material belonging to any previous employer or others. I am not a party to any other agreement which will interfere with my full compliance with this Agreement. I agree not to enter into any agreement, whether written or oral, in conflict with the provisions of this Agreement.

12 **Survival.** This Agreement (a) shall survive my employment by the Company, (b) does not in any way restrict my right or the right of the Company to terminate my employment at any time, for any reason or for no reason, (c) inures to the benefit of successors and assigns of the Company, and (d) is binding upon my heirs and legal representatives.

13 **Nonassignable Inventions.** This Agreement does not apply to an invention which qualifies fully as a nonassignable invention under the provisions of Section 2870 of the California Labor Code. I have reviewed the notification in Exhibit B ("Limited Exclusion Notification") and agree that my signature acknowledges receipt of the notification.

14 **No Solicitation.** During the term of my employment with the Company and for a period of one (1) year thereafter, I will not solicit, encourage, or cause others to solicit or encourage any employees of the Company to terminate their employment with the Company. [In the case of personnel at the Director, Vice President and President this paragraph is modified by the "Addendum to Employee Inventions Agreement" attached hereto as Exhibit C and incorporated herein by reference.]

15 **Injunctive Relief.** A breach of any of the promises or agreements contained herein will result in irreparable and continuing damage to the Company for which there will be no adequate remedy at law, and the Company shall be entitled to injunctive relief and/or a decree for specific performance, and such other relief as may be proper (including monetary damages if appropriate).

16 Notices. Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows with notice deemed given as indicated: (i) by personal delivery when delivered personally; (ii) by overnight courier upon written verification of receipt; (iii) by telecopy or facsimile transmission upon acknowledgement of receipt of electronic transmission; or (iv) by certified or registered mail, return receipt requested, upon verification of receipt. Notice shall be sent to the addresses set forth above or such other address as either party may specify in writing.

17 Governing Law. This Agreement shall be governed in all respects by the laws of the United States of America and by the laws of the State of California, as such laws are applied to agreements entered into and to be performed entirely within California between California residents.

18 Severability. Should any provisions of this Agreement be held by a court of law to be illegal, invalid or unenforceable, the legality, validity and enforceability of the remaining provisions of this Agreement shall not be affected or impaired thereby.

19 Waiver. The waiver by the Company of a breach of any provision of this Agreement by me shall not operate or be construed as a waiver of any other or subsequent breach by me.

20 Termination of Employment

(a) If my employment with the Company is terminated for any reason, I shall promptly and without request inform the Company of and deliver to the Company all documents and data pertaining to my employment and the Proprietary Information and Inventions, whether prepared by me or otherwise coming into my possession or control. I shall not retain any written or other tangible material containing any information concerning or disclosing any Proprietary Information or Inventions.

(b) If my employment with the Company is terminated for any reason, I will protect the value of the Proprietary Information and Inventions and will prevent their misappropriation or disclosure. I will not disclose or use any Proprietary Information or Inventions for my benefit or the benefit of any third party, or to the detriment of the Company or its customers.

(c) I recognize that the unauthorized taking of any of the Company's trade secrets is a crime under California Penal Code section 499c, punishable by imprisonment for a time not exceeding one year, by a fine not exceeding \$5000, or both. I further recognize that such unauthorized taking of the Company's trade secrets could also result in civil liability under the California Uniform Trade Secrets Act (Civil Code sections 3426-3426.11), and that willful misappropriation may result in an award against me for triple the amount of the Company's damages and the Company's attorney fees in collecting such damages.

21. Entire Agreement. This Agreement represents my entire understanding with the Company with respect to the subject matter of this Agreement and supersedes all previous understandings, written or oral. This Agreement may be amended or modified only with the written consent of both me and the Company. No oral waiver, amendment or modification shall be effective under any circumstances whatsoever.

I certify and acknowledge that I have carefully read all of the provisions of this Agreement and that I understand and will fully and faithfully comply with such provisions

Company

myCIO.com

By

Title

Dated.

EMPLOYEE

DAN MELCHIONE

By

Printed Name: Dan Melchione

Dated:

4/24/00

Exhibit A

PRIOR INVENTIONS

Exhibit B

LIMITED EXCLUSION NOTIFICATION

THIS IS TO NOTIFY you in accordance with Section 2872 of the California Labor Code that the foregoing Agreement between you and the Company does not require you to assign or offer to assign to the Company any invention that you developed entirely on your own time without using the Company's equipment, supplies, facilities or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the Company's business, or actual or demonstrably anticipated research or development of the Company

(2) Result from any work performed by you for the Company

To the extent a provision in the foregoing Agreement purports to require you to assign an invention otherwise excluded from the preceding paragraph, the provision is against the public policy of this state and is unenforceable.

This limited exclusion does not apply to any patent or invention covered by a contract between the Company and the United States or any of its agencies requiring full title to such patent or invention to be in the United States.

I ACKNOWLEDGE RECEIPT of a copy of this notification

By



Dan Melchione

Date

5/24/2000

Witnessed by

(Printed Name of Representative)

Dated

EXHIBIT C

ADDENDUM TO EMPLOYEE INVENTIONS AND
PROPRIETARY RIGHTS ASSIGNMENT AGREEMENT
(For Directors, Vice Presidents, President)

This Addendum, dated to be effective as of _____, hereby modifies and supplements the Employee Inventions and Proprietary Rights Assignment Agreement (the "Employee Inventions Agreement") between Company and the individual Employee identified below.

In return for new or continued employment by the Company at the level of Director, Vice President, or President, the Company and the Employee hereby acknowledge and agree as follows:

1. Definitions As used in this definition, the following terms shall have the following meanings:

"Applicable Fee" shall mean fifty percent of the On Target Compensation of the Restricted Individual in the one year period ending on the date that the Restricted Individual last provides services to Company.

"Contract Employee" means a person who provides services to an entity as an independent contract either directly or through a contract with a temporary or other similar service and such person has worked more than twenty hours a week for a period of longer than two weeks on projects identified and directed by such entity. "Contract Employees" do not include persons providing consulting services to an entity pursuant to a consulting services agreement between Company and such entity.

"Employed" shall mean that the individual is a full- or part-time employee of Employee's new employer or is a Contract Employee of Employee's new employer.

"Employee's Work Organization" shall mean, with respect to any entity at which Employee is either a full- or part-time employee or Contract Employee, those persons reporting to Employee, any persons reporting to such persons, directly or through intermediate personnel and any other persons for whose work product and work results Employee is responsible or directs in whole or substantial part.

"On Target Compensation" shall mean the amount paid to such Restricted Individual for that person's services, including bonuses and commissions, and the amount of bonus and/or commission that such individual would have been paid in any final partial quarter had such person remained during the entire period and completed all designated objectives for the bonus in the case of a non-sales person or achieved his or her sales quota in the case of a sales person.

"Restricted Individual" shall mean any person who has worked at Company either as a full- or part-time employee or as a Contract Employee within six months prior to the initial date that the person is Employed in Employee's Work Organization.

2. Use of Restricted Individuals

In accordance with the Employee Inventions Agreement, the Employee agrees that during the term of its employment with the Company and for a period of one (1) year thereafter, Employee shall not solicit, encourage, or cause others to solicit or encourage any employees of the Company to terminate their employment with the Company. Employee hereby agrees that in the event that Employee breaches this provision, the Company will suffer damages, and that such damages would be very difficult to calculate, however, such damages would certainly encompass expenses in recruiting and training a replacement for the employee. Thus, if within one year of the termination of Employee's employment with Company for whatever reason or no reason, a Restricted Individual is Employed in Employee's Work Organization, Employee agrees to pay to Company the Applicable Fee with respect to each such Restricted Individual. The Applicable Fee shall be due and payable to Company within thirty days of the date the first payment is made to the Restricted Individual with respect to his or her Employment in Employee's Work Organization. The Applicable Fee is intended to compensate the parties for the actual damages suffered and is not intended to be punitive in nature.

3 Confirmation and Application

This Addendum shall be governed by and forms a part of the Employee Inventions Agreement between Company and Employee. The foregoing agreements are in addition to and do not supercede the terms of the Employee Inventions Agreement with respect to solicitation or hiring of the employees of Company.


The Company and Employee hereby ratify and confirm the Employee Invention Agreement.

IN WITNESS WHEREOF, Company and Employee have executed this Addendum to the Employee Inventions Agreement as of the day and year first above written.

myCIC.com

EMPLOYEE.

By _____
Name _____
Title _____

By 
Name Dan Meichione
Title Software Developer

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

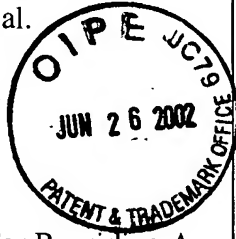
Applicant(s): Kouznetsov et al.

Application No.: 10/057,702

Filed: January 25, 2002

Title: System And Method For Providing A
Framework For Network Appliance
Management In A Distributed
Computing Environment

Attorney Docket No.: 002.0230.01



Group Art Unit: 2171

Examiner: Unassigned

Assistant Commissioner for Patents
Washington, D.C. 20231

**DECLARATION OF CASEY LEICHTER ACCOMPANYING
PETITION FOR PATENT APPLICATION FILING UNDER 37 CFR 1.47(a)**

I, Casey Leichter, am a paralegal in the Law Offices of Patrick J.S. Inouye. I am responsible for handling the receipt and sending of written correspondence, including correspondence sent to and received from clients and inventors, via the U.S. Postal Service and other carriers. I receive and send correspondence daily.

On December 21, 2001, per the instructions of Patrick J.S. Inouye, I mailed the following documents ("Documents") to Daniel J. Melchione: (1) U.S. Patent Application entitled, "System And Method For Providing A Framework For Network Appliance Management In A Distributed Computing Environment"; (2) Declaration and Power of Attorney; (3) Assignment; and (4) cover letter from the Law Offices of Patrick J.S. Inouye, dated December 21, 2001 (Exhibit 8). I sent two sets of the Documents to Mr. Melchione to his last known address at 10380 SW 152nd Terrace, Beaverton, Oregon 97007. I sent the original set via Certified Mail with Return Receipt Requested ("Certified Mailing Document Set"). I sent a copy of the original Documents via First Class Mail ("First Class Mail Document Set"). Copies of the Certificate of Mailing and the Certified Mail Receipt for the Certified Mailing Document Set, both dated December 21, 2001, are provided at Exhibit 9.


On January 18, 2002, the U.S. Postal Service notified me that: (1) Notices of Certified Mail were left at Mr. Melchione's above-noted address on December 24, 2001, and January 11, 2002, informing of the arrival of the Certified Mailing Document Set; (2) the Certified Mailing Document Set was held at the U.S. Post Office, Aloha, Oregon branch, pending pickup by Mr. Melchione; and (3) the Certified Mailing Document Set was not picked up by Mr. Melchione. I was told by the U.S. Postal Service that the Certified Mailing Document Set was marked "Unclaimed" and would be returned back to my office in due course.

Around January 31, 2002, the Certified Mailing Document Set was returned back to me in the mail as undeliverable. A stamp on the envelope indicates the package was unclaimed. A copy of the envelope for the Certified Mailing Document Set, indicating the reason for return, is provided at Exhibit 10.

To date, I have not received back the First Class Mail Document Set.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: May 24, 2002



Casey Leichter

The Law Offices of Patrick J.S. Inouye
Registered Patent Attorney

Office: 810 Third Avenue, Suite 258
Seattle, Washington 98104
Telephone: (206) 381-3900
Facsimile: (206) 381-3999
Email: patrick_inouye@qwest.net

December 21, 2001

VIA CERTIFIED MAIL – w/Confirmation Copy via First Class Mail

Daniel J. Melchione
10380 SW 152d Terrace
Beaverton, OR 97007



RE: U.S. Patent Application Entitled:
"System And Method For Providing Web Browser-Based Secure Remote
Network Appliance Configuration on a Distributed Computing
Environment"
Applicants: Kouznetsov et al.
Serial No.: Unassigned
Filed: TBD
Our Docket No.: 002.0233.01
NAI Docket No.: 01.085.01

COPY

Dear Dan:

Please find enclosed a draft of the above-identified patent application for review, as well as formal documents for execution.

As you may recall, this patent application is a conversion of the provisional U.S. applications entitled, "Secure Network Appliance Configuration and Management Framework," and "System And Method for Performing Efficient Anti-Virus Screening of Transient Messages at a Network Gateway," both of which were filed with the U.S. Patent and Trademark Office on August 3, 2001.

After you have completed your review, please sign and date the enclosed Declaration/Power of Attorney, and execute and sign the Assignment. Please return both completed documents in the enclosed self-addressed, stamped envelope.

As a reminder, you are under an obligation to assign this patent application per your employment contract with Network Associates, Inc. That obligation legally applies even when you are a former employee who participated as an inventor during the time of your employment.

Please feel free to call me should you have any questions. Thank you.

Very truly yours,


Patrick J.S. Inouye

Encls.

JUN 26 2002

ATTORNEY DOCKET NO. 002.0233.01

DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

System And Method For Providing Web Browser-Based Secure Remote Network Appliance Configuration In A Distributed Computing Environment

the specification of which is attached hereto unless the following box is checked:

() was filed on _____ as US Application Serial No. or PCT International Application
Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____
			YES: _____ NO: _____

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE
60/309,835	8/3/2001
60/309,858	8/3/2001

U.S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS(patented/pending/abandoned)

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) listed below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Patrick J.S. Inouye, Esq., Reg. No. 40297

Christopher J. Hamaty, Esq., Reg. No 37,634

Send Correspondence to:

Direct Telephone Calls To:

Patrick J.S. Inouye, Esq.
Law Offices of Patrick J.S. Inouye
810 Third Avenue
Suite 258
Seattle, WA 98104

Patrick J.S. Inouye, Esq.
(206) 381-3900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Victor KouznetsovCitizenship: RussiaResidence: 20287 SW Tremont Wav, Aloha, Oregon 97007Post Office Address: Same

Inventor's Signature _____

Date _____

Full Name of Inventor: Michael Chin-Hwan Pak _____ Citizenship: USA _____

Residence: 15894 NW Andalusian Way, Portland, OR 97229 _____

Post Office Address: Same _____

Inventor's Signature _____ Date _____

Full Name of Inventor: Daniel J. Melchione _____ Citizenship: USA _____

Residence: 10380 SW 152d Terrace, Beaverton, Oregon 97007 _____

Post Office Address: Same _____

Inventor's Signature _____ Date _____

Full Name of Inventor: Nicholas C. W. Hogle _____ Citizenship: USA _____

Residence: 147 West Campus, Oregon State University, Corvallis, Oregon 97331-1801 _____

Post Office Address: Same _____

Inventor's Signature _____ Date _____

JOINT ASSIGNMENT

WHEREAS, WE, Victor Kouznetsov, Daniel J. Melchione, Michael Chin-Hwan Pak, and Nicholas C.W. Hogle (hereinafter "ASSIGNORS"), citizens of Russia, USA, USA, and USA, respectively, residing at; 20287 SW Tremont Way, Aloha, Oregon 97007; 10380 SW 152d Terrace, Beaverton, Oregon 97007; 15894 NW Andalusian Way, Portland, OR 97229, and 147 West Campus, Oregon State University, Corvallis, OR 97331-1801, respectively; are the inventors of the invention in "System And Method For Providing Web Browser-Based Secure Remote Network Appliance Configuration In A Distributed Computing Environment," for which we have executed a patent application with the U.S. Patent and Trademark Office of the United States

- ☒ which is executed on even date herewith
- ☒ which is identified by THE LAW OFFICES OF PATRICK J.S. INOUE as attorney docket no. 002.0233.01
- ☐ which was filed on [FILING DATE], Application No. [APPLICATION NO.]

and WHEREAS, Networks Associates Technology, Inc. (hereinafter "ASSIGNEE"), a Delaware Corporation having a business address at 3965 Freedom Circle, Santa Clara CA 95054, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, we, the said ASSIGNORS, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States patent application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

AND WE HEREBY authorize and request the Director of the United States Patent and Trademark Office, and any Official of any country or countries foreign to the United States, whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree that we have the full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries. In the event that one or more of the above inventors is not an employee of ASSIGNEE at the

time such aid is required, they agree to render such aid in return for an hourly rate of pay no greater than twice their equivalent regular hourly pay as it stood on the date of their departure from ASSIGNEE.

IN WITNESS WHEREOF, said Inventor(s) have executed and delivered this instrument to said Assignee as of the dates written below.

Date _____, 2001 _____
Victor Kouznetsov

Date _____, 2001 _____
Daniel J. Melchione

Date _____, 2001 _____
Michael Chin-Hwan Pak

Date _____, 2001 _____
Nicholas C.W. Hogle

Date _____, 2001 _____
Nicholas C.W. Hogle

5 **SYSTEM AND METHOD FOR PROVIDING WEB BROWSER-BASED
SECURE REMOTE NETWORK APPLIANCE CONFIGURATION IN A
DISTRIBUTED COMPUTING ENVIRONMENT**

Cross-Reference to Related Applications

10 This patent application is a conversion of U.S. provisional patent
applications, Serial No. 60/309,835, filed August 3, 2001, pending; and Serial No.
60/309,858, filed August 3, 2001, pending; the priority dates of which are claimed
and the disclosures of which are incorporated by reference.

Field of the Invention

15 The present invention relates in general to secure network appliance
configuration and, in particular, to a system and method for providing Web
browser-based secure remote network appliance configuration in a distributed
computing environment.

Background of the Invention

20 Enterprise computing environments generally include both localized
intranetworks of interconnected computer systems and resources internal to an
organization and geographically distributed internetworks, including the Internet.
Intranetworks make legacy databases and information resources available for
controlled access and data exchange. Internetworks enable internal users to
access remote data repositories and computational resources and allow outside
25 users to access select internal resources for completing limited transactions or
data transfer.

30 Increasingly, network appliances, or simply "appliances," are being
deployed within intranetworks to compliment and extend the types of services
offered. As a class, network appliances have closed architectures and often lack a
standard user interface. These devices provide specialized services, such as

electronic mail (email) anti-virus scanning, content filtering, file, Web and print service, and packet routing functions.

Ideally, network appliances should be minimal configuration devices, which are purchased, plugged into a network, and put into use with no further
5 modification or change. Analogous to a cellular telephone, a network appliance should ideally provide the service promised without requiring involved configuration and setup by individual users or administrators.

Nevertheless, configuring newly-installed appliances remains a complicated and confusing endeavor. Appliance configuration is generally
10 vendor-specific and device-dependent. The lack of a user interface allows only indirect configuration and setup. Configuration often takes several steps. From a physical connectivity standpoint, appliance configuration typically requires operating a manual control panel, reconfiguring an installed appliance from a factory set of default settings or performing a myriad of other device-dependent
15 operations to affect a configured setup. Consequently, a higher than average level of user sophistication is required to avoid a confusing, incorrect or potentially catastrophic outcome.

In addition, operational software and firmware must also be properly configured as part of an initial setup. Often, a full software suite, including
20 operating system, must be installed prior to initializing the appliance. In addition, the network protocol stack must be configured to operate within the specific installed network topology into which the device is deployed.

Finally, various policies must be installed and operationally enforced on each appliance. Appliances offering plug-and-play installation generally lack the
25 default settings necessary to enforce security and administrative policies. As well, until fully configured, these devices enjoy potentially free rein over a network domain and pose a serious security risk to an entire enterprise.

For instance, replay attacks are possible during device configuration. A configuration packet could be intercepted by a hostile agent and later re-sent
30 ("replayed") with altered settings to reset the configuration and create a security breach.

In addition to per-device configuration and setup considerations, the deployment of appliances can create network management concerns. For instance, a large population of deployed appliances can drastically increase network management workload. Vendor-specific and device-dependent settings
5 necessitate individualized attention to each successive appliance installation. A rich network environment having a multitude of heterogeneous systems and appliances can quickly overwhelm a network administrator and make the task of identifying unconfigured devices difficult and time consuming.

In the prior art, the dynamic host configuration protocol (DHCP) provides
10 a partial solution. DHCP allows a TCP/IP-compatible device to be dynamically assigned a network address within a pre-defined network domain. A DHCP server maintains a table of the network addresses assigned to each interconnected device, thereby preventing address conflicts. Network address assignments are “pushed” to each newly-connected device. However, DHCP servers are limited
15 to configuring network addresses and fail to provide policy and device parameter configuration and setup.

Therefore, there is a need for an approach to providing remote secure configuration of network appliances from a standardized user interface. Preferably, such an approach would offer a Web browser-based solution allowing
20 configuration from a ubiquitous and widely available interfacing means. Such an approach would further provide a standardized interface for appliance configuration and setup in a vendor-neutral and device-independent fashion.

There is a further need for an approach to providing automatic configuration of network appliances during initialization upon deployment into a
25 network domain. Preferably, such an approach would provide a complete bootstrap solution with minimal user interaction. Furthermore, such an approach would preferably realize a cellular telephone service model of purchase, plug in and use.

There is a further need for an approach to providing network-based
30 configuration of network appliances that substantially minimizes the potential for creating security risks and, in particular, preventing replay attacks.

Summary of the Invention

The present invention provides a system and method for remotely configuring a network appliance deployed within a network domain. A configuration client executes a Web browser upon which is loaded an applet for performing remote appliance configuration. The applet is initially retrieved from a centralized network operations center, which maintains a set of applets customized for each separate network domain and individual configurations for various network appliances. The configuration client, via the applet, broadcasts a "ping" query message to all appliances and receives back from each a response indicating a configuration state. An appliance configuration for each unconfigured network appliance is requested from the network operations center. The network operations center returns configuration parameters to the configuration client and a configuration packet is sent to each unconfigured appliance. Upon the successful configuration of each appliance, the configuration client instructs the appliance to begin a remote management session. Otherwise, the configuration packet is resent or the configuration client waits for the installation to complete.

An embodiment of the present invention provides a system and a method for providing Web browser-based remote network appliance configuration in a distributed computing environment. A query message is broadcast from an applet executing within a Web browser to one or more network appliances. The network appliances are interconnected within a bounded network domain defined by a common network address space. A response message containing network settings, including a physical network address, is received by the applet from at least one such network appliance responsive to the query message and processed. A configuration packet is generated and sent using the physical network address for each at least one such network appliance sending a response message and requiring configuration.

A further embodiment provides a system and method for remotely configuring a network appliance deployed within a distributed computing environment. A response message containing network settings is sent from at

least one network appliance responsive to a query message broadcast over a specified network domain within which the at least one network appliance operates. A configuration package for the at least one network appliance is generated. The configuration package contains centrally managed network settings customized for the at least one network appliance. The configuration package is installed on the at least one network appliance as part of an initialization bootstrap operation.

Still other embodiments of the present invention will become readily apparent to those skilled in the art from the following detailed description, wherein is described embodiments of the invention by way of illustrating the best mode contemplated for carrying out the invention. As will be realized, the invention is capable of other and different embodiments and its several details are capable of modifications in various obvious respects, all without departing from the spirit and the scope of the present invention. Accordingly, the drawings and detailed description are to be regarded as illustrative in nature and not as restrictive.

Brief Description of the Drawings

FIGURE 1 is a block diagram showing a system for providing Web browser-based secure remote network appliance configuration in a distributed computing environment.

FIGURE 2 is a block diagram showing the software modules of the network operations center of FIGURE 1.

FIGURE 3 is a block diagram showing the software modules of the configuration client of FIGURE 1.

FIGURE 4 is a block diagram showing the software modules of an exemplary network appliance of FIGURE 1.

FIGURE 5 is a process flow diagram showing a remote network appliance configuration, as performed by the system of FIGURE 1.

FIGURE 6 is a data structure diagram showing a configuration packet served by the configuration client of FIGURE 1.

FIGURE 7 is a flow diagram showing a method for providing Web browser-based secure remote network appliance configuration in a distributed computing environment, in accordance with the present invention.

FIGURE 8 is a flow diagram showing the process performed by the
5 network operations center of FIGURE 2.

FIGURES 9A and 9B are flow diagrams showing the process performed by the configuration client of FIGURE 1.

FIGURE 10 is a flow diagram showing the process performed by the network appliance of FIGURE 4.

10 Detailed Description

FIGURE 1 is a network diagram 10 showing a system for providing Web browser-based secure remote network appliance configuration in a distributed computing environment, in accordance with the present invention. The distributed computing environment is preferably TCP/IP compliant. A plurality
15 of individual network appliances (or simply "appliances") 11a-c are interconnected via an intranetwork 13. Each of the appliances 11a-c is autonomously configured and provides specified functionality, such as electronic mail (email) anti-virus scanning, content filtering, packet routing, or file, Web, or print service. Other forms of appliance services are feasible, as would be
20 recognized by one skilled in the art.

In addition to providing the specified functionality, the various appliances 11a-c are autonomously self-configured and self-managed, as further described below beginning with reference to FIGURE 4. The appliances 11a-c are remotely configured through a configuration client 16 executing within a bounded network
25 domain defined by a common network address space. The configuration client 16 includes a Web browser 17 upon which an applet 23 executes to transparently install and configure each of the interconnected appliances 11a-c.

Upon the physical connection of each new appliance 11a-c onto the intranetwork 13, an administrator executes a configuration application on the
30 configuration client 16 via the Web browser 17. The Web browser 17 provides a user-friendly and standardized user interface for configuring appliances 11a-c in a

device-independent and vendor-neutral manner. The configuration application executes the applet 2, which broadcasts a "ping" query message to all appliances 11a-c on the intranetwork 13. In response, each appliance 11a-c sends a response back to the configuration client 16, which then determines those appliances 11a-c requiring configuration and setup.

For each unconfigured appliance 11a-c, the configuration client 16 requests configuration parameters from a centralized network operations center (NOC) 12 in a secure session.

The network operations center 12 determines the parameters necessary to properly configure the unconfigured appliance 11a-c in accordance with applicable security and administration policies. The configuration parameters are sent to the requesting configuration client 16. Upon receiving the set of configuration parameters for each new appliance 11a-c, the configuration client 16 generates a configuration packet, which is customized for and sent to each unconfigured appliance 11a-c. Upon the successful installation of each configuration packet by the appliances 11a-c, the configuration client 16 sends a "kick-start" packet to initiate a secure remote management session on each appliance 11a-c, such as described in commonly-assigned related U.S. patent application Serial No. _____, entitled "System And Method For Providing A Framework For Network Appliance Management In A Distributed Computing Environment," filed January 25, 2002, pending, the disclosure of which is incorporated by reference.

The appliance configuration performed by the configuration client 16 is system independent and can be executed by any client interconnected within the same network domain as the appliances being configured. Accordingly, each new configuration client 16 initially requests an applet from an applet server 15 executing on the network operations center 12 via a secure session. The applet server 15 is coupled to an applet database 14 to allow customization of the configuration functions performed within each individual network domain. Upon receipt of the applet, the configuration client 16 can proceed to configure the individual appliances 11a-c.

Each appliance 11a-c is interconnected via an intranetwork 13 which is, in turn, interconnected to an internetwork 20, including the Internet, via a firewall 21 and border router 22. The configuration client 16 is also interconnected via the intranetwork 13 and shares the same network domain with the appliances 11a-c.

5 The network operations center 12 is external to the intranetwork 13 and is only accessible as a remote host via the internetwork 20. Accordingly, the configuration parameter and applet request functions are transacted with each appliance 11a-c in a secure session, preferably using the Secure Hypertext Transport Protocol (HTTPS). Other network configurations, topologies and

10 arrangements of clients and servers are possible, as would be recognized by one skilled in the art.

The individual computer systems, including servers and clients, are general purpose, programmed digital computing devices consisting of a central processing unit (CPU), random access memory (RAM), non-volatile secondary

15 storage, such as a hard drive or CD ROM drive, network interfaces, and peripheral devices, including user interfacing means, such as a keyboard and display. Program code, including software programs and data, are loaded into the RAM for execution and processing by the CPU and results are generated for display, output, transmittal, or storage.

20 FIGURE 2 is a block diagram showing the software modules 30 of the network of FIGURE 1. The network operations center 12 includes three modules: status monitor 31, status daemon 32 and applet server 15. The applet server 15 executes as part of the network operations center 12. The status monitor 31 receives periodic status reports from the individual network appliances 11a-c

25 (shown in FIGURE 1). Each status report is recorded and registered in an appliance status table 33, which notes the appliance user identifier (UID) and time of each report. The status daemon 32 executes as an independent process that periodically awakens and examines the appliance status table 33 to determine whether any of the appliances 11a-c have failed to report. As necessary, an alert

30 is generated to inform an administrator of a potentially faulty appliance.

The applet server 15 includes three modules: applet engine 34, database 35, and crypto 36. The applet engine 34 downloads individual applets 23 maintained in the applet database 14 to requesting configuration clients 16 (shown in FIGURE 1) via a secure session. A library of applets 37 are maintained to
5 allow customization of the various configuration applications executing within the Web browsers 17 each configuration client 16.

The database module 35 interfaces to the applet database 14 to access the applets 37 maintained therein. In the described embodiment, the applet database 14 is a structured query language (SQL) based database. The applets 37 are
10 stored as structured records indexed by client identifiers.

The crypto module 36 provides asymmetric (public key) and symmetric encryption. Both forms of cryptography are needed to transact a secure session with each appliance 11a-c. As well, the network operations center 12 uses the crypto module 36 to digitally sign and encrypt the applets 37.

15 The network operations center 12 includes a message queue 38 through which instructions to the applets 23 (shown in FIGURE 1) deployed on the individual configuration clients 16 are communicated. The configuration clients 16 execute in an event-driven manner. Periodically, each configuration client 16 checks the message queue 38 for new instructions which are transparently
20 executed by the applet 23.

In the described embodiment, five types of messages are communicated between the network operations center 12 and the configuration clients 16, as follows:

25 *sendRefresh()*: Sends a message to message queue 38 instructing the applet 23 to refresh the list of appliances 11a-c that are on the network.

SendKick(): Sends a message to message queue 38 instructing the applet 23 to send out a kick-start packet to the appliance 11a-c with the given media access controller (MAC) address.

Parameters:

MAC: The MAC address of the appliance 11a-c to which the kick-start packet will be sent. Should be in "AA:BB:CC:00:11:22" format.

5 *sendConfig()*: Sends a message to message queue 38 instructing the applet 23 to send a "CONFIG" configuration packet to the appliance 11a-c with the given MAC address.

Parameters:

10 MAC: The MAC address of the appliance 11a-c to which the configuration packet will be sent. Should be in "AA:BB:CC:00:11:22" format.

Hostname: Value to be assigned as the hostname.

Domain: Value to be assigned as the domain name.

IP: Value to be assigned as the IP address.

Netmask: Value to be assigned as the network mask.

15 Gateway: Value to be assigned as the internet gateway.

DNS1: Primary domain-name server.

DNS2: Secondary domain-name server.

String getList(): Returns a list of select appliances 11a-c with current network configuration in an internal appliance list in a configuration client 16.

20 Parameters:

Filter: Value that determines which appliances 11a-c are returned. If the value is "0," all appliances are returned; and if the value is "2," only configured appliances are returned

Return Value:

25 The return value is a String that contains the select appliances, and current configuration information. The return value is a pipe-symbol ("|") delimited for every network parameter. An example return value is:

00:B0:D0:11:22:33:test1,mycio.com,127.0.0.1,255.255.255.
128,0.0.0.0,0.0.0,0.0.0.0|00:11:22:33:44:55:test2,
30 mycio.com,127.0.0.1,255.255.255.128,0.0.0.0,0.0.0.0

getStatus(): Returns the status of the *sendConfig* message. Returns "0" if no SUCCESS or FAILED packet has yet been received from an appliance 11a-c; "1" if a SUCCESS packet was received; and "-1" if a FAILED packet was received.

5 FIGURE 3 is a block diagram showing the software modules 40 of a configuration client 16 of FIGURE 1. The configuration client 16 includes a Web browser 17 executing an applet 23. In the described embodiment, the Web browser 17 is a HTML-compatible Web browser, such as the Internet Explorer, licensed by Microsoft Corporation, Redmond, Washington, capable of executing
10 downloadable programs, including applets, written in an interpretable programming language, such as the Java programming language.

 The applet includes three functional modules: status 41, configuration and packet generation 42, and completion 43. The status module 41 broadcasts a query message to the interconnected network appliances 11a-c (shown in
15 FIGURE 1) and processes response messages received back to determine the configuration of each appliance 11a-c. The status of each appliance 11a-c is maintained in a configured appliances list 44. The configuration and packet generation module 42 receive configuration parameters from the network
20 operations center 12 (shown in FIGURE 1) and generates a configuration packet for downloading to an unconfigured appliance 11a-c. The completion module 43 receives a status message from each unconfigured appliance 11a-c indicating whether the configuration packet was successfully installed. A configuration packet will be re-sent to any appliance 11a-c that fails to successfully complete configuration.

25 FIGURE 4 is a block diagram showing the software modules 50 of an exemplary network appliance 11a of FIGURE 1. Application-specific logic has been omitted for clarity. As pertains to autonomous configuration and management, each network appliance 11a includes four modules: bootstrap module 51, crypto 52, installer 53, and status daemon 54. The bootstrap module
30 51 executes upon the initial installation of the appliance 11a onto the intranetwork 13. The bootstrap module 51 sends a response message in reply to a broadcasted

“ping” query message from the configuration client 16. The response message includes the current configured network settings in use by the appliance 11a. For an unconfigured appliance 11a, the response packet includes only the media access controller (MAC) address used by the appliance 11a. As well, the
5 bootstrap module 51 sends a response message to any subsequent query messages sent by the configuration client 16 and includes all currently in-use configured network settings, as maintained in the appliance configuration 55.

Upon receiving a configuration packet from the configuration client 16, the bootstrap module 51 installs and sets up the various software applications to
10 be executed by the appliance 11a. The software can include the operating system and any application-specific logic integral to providing the service performed by the appliance 11a. Through the use of the network operations center 12 and configuration client 16, the appliance 11a can be configured and managed remotely and in compliance with applicable security and administrative policies.
15 Accordingly, the autonomous configuration and self-management of each network appliance 11a-c can enable a vendor to provide a complete service model, whereby installations are handled autonomously and without significant end-user intervention.

The crypto module 52 provides asymmetric (public key) and symmetric
20 encryption. Both forms of cryptography are needed to transact a secure session with the network operations center 12 and a component server (not shown) used to manage and update the suite of applications 56 installed on the appliance 11a. The installer 53 installs applications received from a component server. Finally, the status daemon 54 periodically awakens and sends a report of the health and
25 status of the network appliance 11a to the network operations center 12. The status report identifies the reporting appliance 11a and provides machine-specific data, including the load on the processor, available disk space and application-specific information, such as the number of emails passing through the device. The status report is referred to as a “SecureBeat.”

30 Each software module of the network operations center 12, configuration client 16 and exemplary appliance 11a is a computer program, procedure or

module written as source code in a conventional programming language, such as the C++ programming language, and is presented for execution by the CPU as object or byte code, as is known in the art. The various implementations of the source code and object and byte codes can be held on a computer-readable storage medium or embodied on a transmission medium in a carrier wave. The network operations center 12, configuration client 16 and exemplary appliance 11a operate in accordance with a sequence of process steps, as further described beginning below with reference to FIGURE 7.

FIGURE 5 is a process flow diagram showing a remote network appliance configuration, as performed by the system of FIGURE 1. Each network appliance is autonomously configured by a configuration ("config") client 61. Upon the installation of a new appliance on the intranetwork 13 (shown in FIGURE 1), or as necessary to ascertain the current appliance configuration, the configuration client 61 broadcasts a "ping" query message (step 65) to all appliances 62 currently interconnected within the bounded network domain. In response, each appliance 62 sends a response message (step 66) back to the configuration client 61. Each response includes the current configured network settings in use by each appliance 62. A response containing only the media access controller (MAC) address of the appliance 62 indicates that the appliance is currently unconfigured.

For each of the unconfigured appliances, the configuration client 61 sends a configuration packet request message (step 67) to the network operations center 63 via a secure session. The network operations center 63 determines the correct configuration settings required by the appliance to be configured by referencing an appliance status table 33 (shown in FIGURE 2). The network operations center 63 generates a set of configuration parameters, which are sent (step 68) back to the requesting configuration client 61. The secure session is closed and the configuration client 61 forms a configuration packet for the unconfigured appliance 62.

The configuration client 61 sends the configuration packet (step 69) to the unconfigured appliance 64 where the configuration packet is processed and installed. The appliance 64 sends a "SUCCESS" message (step 70) to the

configuration client 61 upon the successful configuration of the appliance. In response, the configuration client 61 returns a kick-start message (step 71) back to the appliance 64 to initiate an autonomous SecureBeat management session. Thereafter, the ongoing management of the appliance 64 is remotely facilitated by the network operations center 63.

If the configuration is unsuccessful, the appliance 64 sends a "FAILURE" message (step 72) back to the configuration client 61, which resends the configuration packet (step 69) until successful.

If the appliance 64 is still in the process of configuring, the appliance 64 sends an unconfigured message (step 73) back to the configuration client 61, which then waits until the appliance 64 has been configured. Thereafter, a SecureBeat management session is initiated.

FIGURE 6 is a data structure diagram showing a configuration packet 80 served by the configuration client 16 of FIGURE 1. Each configuration packet 80 contains the parameters described above with reference to FIGURE 2.

While not necessary to completing an initial appliance configuration, the primary and secondary domain name server parameters 78 and 88, respectively, are optional and are provided for network administrative convenience.

FIGURE 7 is a flow diagram 100 showing a method for providing Web browser-based secure remote network appliance configuration in a distributed computing environment, in accordance with the present invention. The individual components, including network operations center 12, configuration client 16 and individual network appliances 11a-c, execute independently. Each of the components must be initialized and started (blocks 101-103) prior to appliance configuration. Upon respective initialization and starting, each component proceeds independently, as further described below with reference to FIGURES 8-10.

FIGURE 8 is a flow diagram 110 showing the process performed by the network operations center 12 of FIGURE 2. Network operations center 12 begins by connecting to a configuration client 16 (shown in FIGURE 1) requesting an applet 23 (shown in FIGURE 2) (block 111). An applet 23 is downloaded to the

configuration client 16 (block 112). Each configuration client 16 executes the applet 23 in a Web browser 17.

Following applet download (blocks 111-112), the network operations center 12 executes an iterative processing loop (blocks 113-119). During each iteration (block 113), a secure session is established with a configuration client 16 (block 114). Upon establishing a secure session, a configuration packet request is received (block 115). The network operations center 12 looks up the configuration 40 (shown in FIGURE 2) for the configured appliance 11a and generates configuration parameters (block 116). The configuration parameters are downloaded to the configuration client 16 (block 117), after which the secure session is closed (block 118). Processing continues (block 119) until the process is terminated or halted.

FIGURES 9A and 9B are flow diagrams 120 showing the process performed by the configuration client 16 of FIGURE 1. The configuration client 16 begins by broadcasting a "ping" query message to all network appliances 11a-c (block 121) interconnected within the bounded network domain. The configuration client 16 then executes an iterative processing loop (blocks 122-133) for each appliance 11a-c.

During each iteration (block 122), a response from an appliance 11a is received (block 123) and processed as follows. If the response from the appliance 11a indicates that the appliance is not presently configured (block 124), a configuration parameters request is sent to the network operations center 12 (block 125). The network operations center 12 generates a set of configuration parameters which are then received (block 126) and formed into a configuration packet for the unconfigured appliance 11a (block 127). The configuration packet is sent to the appliance 11a (block 128).

The configuration client 16 awaits a status response from the appliance 11a (block 129). If the configuration succeeds (block 130), the configuration client 16 sends a kick-start packet to the appliance 11a (block 131), instructing the now-configured appliance 11a to initiate an autonomous SecureBeat management. Otherwise, if the configuration is not successful (block 130) and has failed (block

132), the configuration packet is sent again to the appliance 11a (block 128). Otherwise, the configuration client 16 waits for the completion of configuration by the appliance 11a (block 133), after which a kick-start packet is sent to the appliance 11a (block 131). Processing continues (block 134) until the process is
5 terminated.

FIGURE 10 is a flow diagram 140 showing the process performed by the network appliance 11a of FIGURE 4. Shortly following deployment into a network domain, or as necessary, a "ping" query message is received from a configuration client 16 (shown in FIGURE 1) (block 141). In response to the
10 query message, the network appliance 11a generates and sends a response back to the requesting configuration client 16 (block 142).

The response message includes the current network setting and configuration 55 (shown in FIGURE 4) used by the network appliance 11a. If the network appliance is not currently configured (block 143), a configuration packet
15 is received from the configuration client 16 (block 144) and installed (block 145). If the installation is successful (block 145), a "success" response message is sent back to the configuration client 16 (block 146). The network appliance 11a then receives a kick-start packet from the configuration client 16 (block 147) instructing the network appliance 11 a to initiate a remote SecureBeat
20 management session (block 148). If installation is not successful (block 145) and fails (block 149), a "failure" response is sent back to the configuration client 16 (block 150), after which a further configuration packet is received from the configuration client 16 (block 144). Otherwise, if installation is still being
25 performed (block 149), an "unconfigured" response is sent to the configuration client 16 (block 151) and the network appliance waits for configuration completion (block 152), after which a kick-start packet is received (block 147) and remote SecureBeat management session initiated (block 148).

While the invention has been particularly shown and described as referenced to the embodiments thereof, those skilled in the art will understand that
30 the foregoing and other changes in form and detail may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

- 1 1. A system for providing Web browser-based remote network
2 appliance configuration in a distributed computing environment, comprising:
3 one or more network appliances interconnected within a bounded network
4 domain defined by a common network address space; and
5 a configuration client comprising an applet executing within a Web
6 browser and configuring the network appliances, comprising:
7 a status module broadcasting a query message to the network
8 appliances and processing a response message containing network settings,
9 including a physical network address, received by the applet from at least one
10 such network appliance responsive to the query message; and
11 a configuration module generating and sending a configuration
12 packet using the physical network address for each at least one such network
13 appliance sending a response message and requiring configuration.
- 1 2. A system according to Claim 1, further comprising:
2 a list of the network appliances maintained by the status module for each
3 at least one such network appliance sending a response message and not requiring
4 configuration.
- 1 3. A system according to Claim 1, further comprising:
2 a completion module receiving a status message from each at least one
3 such network appliance requiring configuration responsive to receipt of the
4 configuration packet.
- 1 4. A system according to Claim 3, wherein the status message
2 indicates a successful configuration, further comprising sending a kickstart
3 message to each at least one such network appliance to initiate an autonomous
4 management session.

1 5. A system according to Claim 3, wherein the status message
2 indicates an unsuccessful configuration, further comprising resending the
3 configuration packet to the at least one such network appliance.

1 6. A system according to Claim 3, wherein the status message
2 indicates an on-going configuration, further comprising waiting for completion of
3 configuration by the at least one such network appliance.

1 7. A system according to Claim 1, further comprising:
2 an applet database storing a plurality of applets customized for execution
3 within each such bounded network domain; and
4 an applet request module receiving the applet from the applet database and
5 installing the applet into the Web browser prior to broadcasting the query
6 message.

1 8. A system according to Claim 7, wherein the applet is received in a
2 secure session.

1 9. A system according to Claim 1, further comprising:
2 a message queue storing instructions for the applet, comprising sending at
3 least one of the query message and the configuration packet.

1 10. A system according to Claim 1, further comprising:
2 a packet generator storing into the configuration packet values comprising
3 at least one of hostname, domain, internet protocol address, netmask, gateway,
4 primary domain name server, and secondary domain name server.

1 11. A system according to Claim 1, wherein the bounded network
2 domain is compliant with the TCP/IP and the configuration packet is compliant
3 with the UDP.

1 12. A method for providing Web browser-based remote network
2 appliance configuration in a distributed computing environment, comprising:

3 broadcasting a query message from an applet executing within a Web
4 browser to one or more network appliances interconnected within a bounded
5 network domain defined by a common network address space;
6 processing a response message containing network settings, including a
7 physical network address, received by the applet from at least one such network
8 appliance responsive to the query message; and
9 generating and sending a configuration packet using the physical network
10 address for each at least one such network appliance sending a response message
11 and requiring configuration.

1 13. A method according to Claim 12, further comprising:
2 updating a list of the network appliances for each at least one such
3 network appliance sending a response message and not requiring configuration.

1 14. A method according to Claim 12, further comprising:
2 receiving a status message from each at least one such network appliance
3 requiring configuration responsive to receipt of the configuration packet.

1 15. A method according to Claim 14, wherein the status message
2 indicates a successful configuration, further comprising:
3 sending a kickstart message to each at least one such network appliance to
4 initiate an autonomous management session.

1 16. A method according to Claim 14, wherein the status message
2 indicates an unsuccessful configuration, further comprising:
3 resending the configuration packet to the at least one such network
4 appliance.

1 17. A method according to Claim 14, wherein the status message
2 indicates an on-going configuration, further comprising:
3 waiting for completion of configuration by the at least one such network
4 appliance.

1 18. A method according to Claim 12, further comprising:

2 receiving the applet from an applet database storing a plurality of applets
3 customized for execution within each such bounded network domain; and
4 installing the applet into the Web browser prior to broadcasting the query
5 message.

1 19. A method according to Claim 18, further comprising:
2 receiving the applet in a secure session.

1 20. A method according to Claim 12, further comprising:
2 sending at least one of the query message and the configuration packet
3 from the applet responsive to instructions maintained in a message queue.

1 21. A method according to Claim 12, further comprising:
2 storing into the configuration packet values comprising at least one of
3 hostname, domain, internet protocol address, netmask, gateway, primary domain
4 name server, and secondary domain name server.

1 22. A method according to Claim 12, wherein the bounded network
2 domain is compliant with the TCP/IP and the configuration packet is compliant
3 with the UDP.

1 23. A computer-readable storage medium holding code for performing
2 the method according to Claims 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, or 22.

1 24. A system for remotely configuring a network appliance deployed
2 within a distributed computing environment, comprising:
3 at least one network appliance sending a response message containing
4 network settings responsive to a query message broadcast over a specified
5 network domain within which the at least one network appliance operates;
6 a configuration client generating a configuration package for the at least
7 one network appliance and containing centrally managed network settings
8 customized for the at least one network appliance; and
9 a bootstrap module on the at least one network appliance installing the
10 configuration package as part of an initialization bootstrap operation.

1 25. A system according to Claim 24, further comprising:
2 a centrally managed library of configurations containing network settings
3 for each such network appliance operating with the specified network domain.

1 26. A system according to Claim 24, further comprising:
2 a library of applets for one or more Web browser-based configuration
3 clients operating within the specified network domain.

1 27. A system according to Claim 26, further comprising:
2 an applet server deploying one such applet from the library to each such
3 configuration client using a secure session.

1 28. A system according to Claim 24, further comprising:
2 a standardized user interface exported by the configuration client and
3 providing configuration controls for a heterogeneous set of the network
4 appliances.

1 29. A system according to Claim 24, further comprising:
2 a package generator including at least one of a timestamp and a unique
3 seed value in each such configuration package.

1 30. A system according to Claim 24, further comprising:
2 a completion module sending a message comprising one of success,
3 failure and unconfigured following configuration package installation at each
4 such network appliance.

1 31. A system according to Claim 24, further comprising:
2 a status daemon initializing a secure management session following
3 successful configuration package installation on at least one such network
4 appliance.

1 32. A system according to Claim 24, wherein at least one such network
2 appliance performs one of electronic mail anti-virus scanning, content filtering,
3 packet routing, and file, Web and print servicing.

1 33. A system according to Claim 24, wherein the distributed
2 computing environment is TCP/IP-compliant.

1 34. A method for remotely configuring a network appliance deployed
2 within a distributed computing environment, comprising:
3 sending a response message containing network settings from at least one
4 network appliance responsive to a query message broadcast over a specified
5 network domain within which the at least one network appliance operates;
6 generating a configuration package for the at least one network appliance
7 and containing centrally managed network settings customized for the at least one
8 network appliance; and
9 installing the configuration package on the at least one network appliance
10 as part of an initialization bootstrap operation.

1 35. A method according to Claim 34, further comprising:
2 centrally managing a library of configurations containing network settings
3 for each such network appliance operating with the specified network domain.

1 36. A method according to Claim 34, further comprising:
2 maintaining a library of applets for one or more Web browser-based
3 configuration clients operating within the specified network domain.

1 37. A method according to Claim 36, further comprising:
2 deploying one such applet from the library to each such configuration
3 client using a secure session.

1 38. A method according to Claim 34, further comprising:
2 exporting a standardized user interface providing configuration controls
3 for a heterogeneous set of the network appliances.

1 39. A method according to Claim 34, further comprising:
2 including at least one of a timestamp and a unique seed value in each such
3 configuration package.

1 40. A method according to Claim 34, further comprising:
2 sending a message comprising one of success, failure and unconfigured
3 following configuration package installation at each such network appliance.

1 41. A method according to Claim 34, further comprising:
2 initializing a secure management session following successful
3 configuration package installation on at least one such network appliance.

1 42. A method according to Claim 34, wherein at least one such
2 network appliance performs one of electronic mail anti-virus scanning, content
3 filtering, packet routing, and file, Web and print servicing.

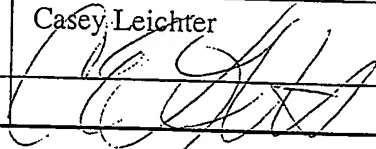
1 43. A method according to Claim 34, wherein the distributed
2 computing environment is TCP/IP-compliant.

1 44. A computer-readable storage medium holding code for performing
2 the method according to Claims 34, 35, 36, 37, 38, 39, 40, 41, 42, or 43.

**SYSTEM AND METHOD FOR PROVIDING WEB BROWSER-BASED
SECURE REMOTE NETWORK APPLIANCE CONFIGURATION IN A
DISTRIBUTED COMPUTING ENVIRONMENT**

Abstract

5 A system and method for providing Web browser-based remote network
appliance configuration in a distributed computing environment is described. A
query message is broadcast from an applet executing within a Web browser to one
or more network appliances. The network appliances are interconnected within a
bounded network domain defined by a common network address space. A
10 response message containing network settings, including a physical network
address, is received by the applet from at least one such network appliance
responsive to the query message and processed. A configuration packet is
generated and sent using the physical network address for each at least one such
network appliance sending a response message and requiring configuration.

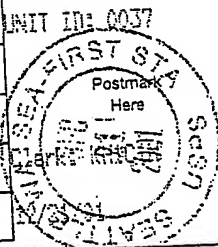
CERTIFICATE OF MAILING			
I hereby certify that this correspondence was deposited with the United States Postal Service with sufficient postage as Certified Mail in an envelope addressed to: Daniel J. Melchione, 10380 SW 152nd Terrace, Beaverton, Oregon 97007, on December 21, 2001.			
Type or printed name	Casey Leichter	12/21/01	
Signature		Date	12/21/01



U.S. Postal Service
CERTIFIED MAIL RECEIPT
 (Domestic Mail Only. No Insurance Coverage Provided)

BEAVERTON, OR 97007

Postage	\$ 2.87
Certified Fee	2.10
Return Receipt Fee (Endorsement Required)	1.50
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 6.47



Sent To: Daniel J. Melchione
 Street, Apt. No., or PO Box No.: 10380 SW 152nd Terrace
 City, State, ZIP+4: Beaverton OR 97007

PS Form 3800, May 2000

Certified Mail Provides:

- ☒ A mailing receipt
- ☒ A unique identifier for your mailpiece
- ☒ A signature upon delivery
- ☒ A record of delivery kept by the Postal Service for two years

Important Reminders:

- ☒ Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- ☒ Certified Mail is not available for any class of international mail.
- ☒ NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- ☒ For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- ☒ For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
- ☒ If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.

PS Form 3800, May 2000 (Reverse)

102533-99-M-2067

7000 1670 0005 6217 7980

PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

ATTORNEY DOCKET NO. 002.0230.01

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

System And Method For Providing Web Browser-Based Secure Remote Network Appliance Configuration In A Distributed Computing Environment

the specification of which is attached hereto unless the following box is checked:

() was filed on _____ as US Application Serial No. or PCT International Application
Number _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

Foreign Application(s) and/or Claim of Foreign Priority

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____
			YES: _____ NO: _____

Provisional Application

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE
60/309,835	8/3/2001
60/309,858	8/3/2001

U.S. Priority Claim

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS(patented/pending/abandoned)

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) listed below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Patrick J.S. Inouye, Esq., Reg. No. 40297

Christopher J. Hamaty, Esq., Reg. No 37,634

Send Correspondence to:

Direct Telephone Calls To:

Patrick J.S. Inouye, Esq.
Law Offices of Patrick J.S. Inouye
810 Third Avenue
Suite 258
Seattle, WA 98104

Patrick J.S. Inouye, Esq.
(206) 381-3900

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Inventor: Victor Kouznetsov

Citizenship: Russia

Residence: 20287 SW Tremont Way, Aloha, Oregon 97007

Post Office Address: Same

Dec 10, 2001

Date _____

Citizenship: USA

Post Office Address: Same

Date _____

Citizenship: USA

Post Office Address: Same

Date _____

Citizenship: USA

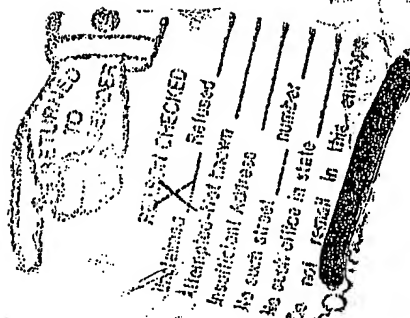
Post Office Address: Same

Date _____



512

Plaint
1st Mail
2nd Mail
Return



Daniel J. Melchione
10380 SW 152d Terrace
Beverly Hills, CA 90210

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Daniel J. Melchione
10380 SW 152d Terrace
Beverly Hills, CA 90210

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly)

B. Date of Delivery

C. Signature

☐ Agent

☐ Addressee

D. Is delivery address different from item 1?

☐ Yes

☐ No

If YES, enter delivery address below:

3. Service Type

☒ Certified Mail

☐ Express Mail

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number (Copy from service label)

1000 1670 0005 10217 7980